

REMARKS

The claims have been amended as needed so as to sharpen their definition of the invention relative to the applied references, and new claims 11-20 have been added, to complete the claim schedule.

Reconsideration is accordingly respectfully requested, for the rejection of the claims over ABE et al. in view of RIFKIN and POSNER.

The present invention is directed to energy-imparting amino acid compositions consisting essentially of six specific amino acids (proline, alanine, valine, isoleucine, lysine and glutamine) in specific molar ratios and a specific amount of optional components (citric acid, a glutamine-stabilizing sugar (trehalose), CoQ10 or vitamin-mix RD-V).

The present invention is characterized by the addition of glutamine which has not been practically contained in conventional amino acid compositions or amino acid solutions due to its instability.

In the present invention, glutamine is added to the conventional amino acid composition consisting essentially of proline, alanine, valine, isoleucine and lysine. The obtained amino acid composition has a stronger function of elevating the motor function than conventional ones containing no glutamine.

As to the remarkable effect of the present invention, please see paragraphs [0034] to [0038] of the present specification and Figures 1-3.

The amino acid composition of V10 in Table 1 (Example 1) consisting of the six amino acids was compared with the amino acid composition of V9 in Table 1 (Comparative Example 1) consisting of the five amino acids but not containing glutamine in terms of the blood sugar level, the free fatty acid amount in the blood and the lactic acid amount.

Figure 1 shows that "V10" exhibits a higher free fatty acid amount in the blood than "V9".

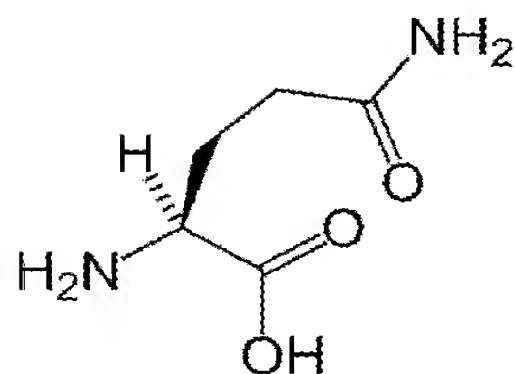
Figure 2 shows that "V10" exhibits a higher blood sugar level than "V9".

Figure 3 shows that "V10" exhibits a lower blood lactic acid amount than "V9".

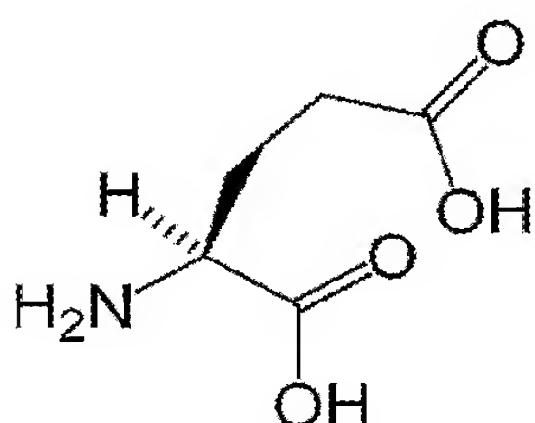
These results establish that "V10" of Example 1 has a higher function of elevating the motor functions than "V9" of Comparative Example 1, in a comprehensive manner.

ABE et al. disclose amino acid compositions containing trehalose. However, ABE et al. do not disclose any amino acid composition consisting essentially of specific six amino acids (proline, alanine, valine, isoleucine, lysine and glutamine) in specific molar ratios.

Please note that glutamic acid is totally different from glutamine.



glutamine



glutamic acid

Similarly, RIFKIN and POSNER do not disclose any amino acid composition consisting essentially of specific six amino acids (proline, alanine, valine, isoleucine, lysine and glutamine) in specific molar ratios.

Thus, the invention set forth in the claims is novel and inventive over ABE et al., RIFKIN and POSNER.

As the claims now in the case clearly bring out these distinctions with ample particularity, it is believed that they are all patentable, and reconsideration and allowance are respectfully submitted.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

/Robert J. Patch/
Robert J. Patch, Reg. No. 17,355
209 Madison Street, Suite 500
Alexandria, VA 22314
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

RJP/lk